### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133

(707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024248

Address: 333 Burma Road **Date Inspected:** 20-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Lu Hua Jie **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

TRIAL ASSEMBLY YARD

**ULTRASONIC TESTING** 

ZPMC NWIT No: 09187

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (UT) report on this date. The members are identified as OBG 14East. The weld designations are as follows:

SEG3019D-320

SEG3019AX-032, 034

This QA Inspector randomly observed the following work in progress.

**OBG 14EAST** 

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#### SHIELDED METAL ARC WELDING PROCESS.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066733 performing the Shielded Metal Arc Welding process on weld 145 located at PCMK SEG3019P. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2114-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 501946 performing the Shielded Metal Arc Welding process on weld 029 located at PCMK DP3167-001. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-Fcm-Repair-1. Weld repair report identified as B-WR20985.

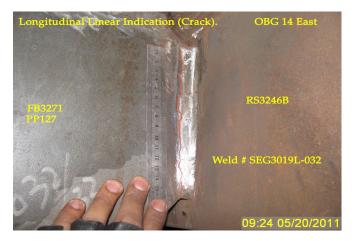
This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066418 performing the Shielded Metal Arc Welding process on weld 100 located at PCMK SEG3019AW. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Weld repair report identified as B-WR21012.

#### **OBG 14 EAST**

During a random visual inspection of OBG segment 14 East this QA Inspector observed four(4) longitudinal linear indications (cracks). Weld numbers are identified as SEG3019L-032 and having a length of approximately 150mm, SEG3019L-026 having a length of approximately 50mm, SEG3019N-050 having a length of approximately 50mm and SEG3019N-51 having a length of approximately 150mm, These welds are fillet type joint. These welds are located between deck panel "I" rib and deck panel diaphragm. This QA Inspector informed ZPMC QC Inspector and Lead QA Inspector(CT) of the locations of the longitudinal Linear Indications and as per the Lead QA Injector the disposition will be to put these welds on punch list, For Further details see the attached photos.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



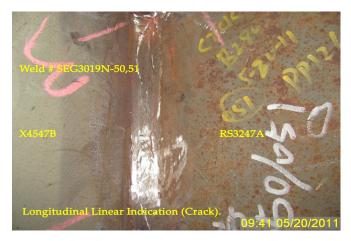


# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations were reported on this date.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer